



**University
of Victoria**

Graduate Studies

Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

OMAR SALEH

MA (Simon Fraser University, 2012)
MBA (University of Toledo, 2003)
BSc (Lebanese American University, 1998)

**“Essays on Foreign Aid and Macro-Economic Performance
of Sub-Saharan African Countries”**

Department of Economics

Thursday, April 18, 2019
9:00 A.M.
Clearihue Building
Room B017

Supervisory Committee:

Dr. Alok Kumar, Department of Economics, University of Victoria (Supervisor)
Dr. Merwan Engineer, Department of Economics, UVic (Member)
Prof. Sorin Rizeanu, Peter B. Gustavson School of Business, UVic (Outside Member)

External Examiner:

Dr. Marcelo Arbex, Department of Economics, University of Windsor

Chair of Oral Examination:

Dr. George Tzanetakis, Department of Computer Science, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies

Abstract

Foreign aid is a major flow of income into sub-Saharan African (SSA) countries, averaging roughly 12% of GDP over the last four decades. Yet, SSA countries are characterized by very low per capita output, low human capital attainment, and widespread poverty. This dissertation investigates the macroeconomic and welfare effects of foreign aid to SSA countries. The empirical part of the dissertation studies 22 SSA countries, and uses a cointegrated vector autoregressive analysis (CVAR). This methodology identifies long-run effects without imposing strong statistical priors. I introduce tradable and non-tradable sectors into the analysis to determine if the so-called “Dutch Disease” is the reason for the plight of SSA countries. “Dutch Disease” occurs when a positive shock to foreign aid perversely reduces GDP, by decreasing the relative price of tradable to non-tradable goods, thus reducing the size of the tradable sector. While I find that aid reduces GDP in eight countries, this result is inconsistent with the “Dutch Disease” as it is not accompanied by large relative price changes. The analysis controls for a number of country-specific characteristics including extraordinary events. Overall, I find non-positive impacts of foreign aid on GDP and the tradable sector, with a few exceptions. I also consider the reverse causal channel and test whether country-specific macroeconomic variables drive foreign aid flows. I find that GDP, tradable output, and tradable and non-tradable goods prices do affect the amount of aid a country receives in 15 countries. These variables have no impact on foreign aid (aid is considered as weakly exogenous) in six countries.

The theoretical part of the dissertation develops two dynamic stochastic general equilibrium – real business cycle — (DSGE-RBC) models to analyze the effects of foreign aid on human capital investment and the business cycle. The distinguishing feature of the models is to embed a human capital investment in a small open economy model of Mendoza (1991). The first model considers one-sector DSGE model, which is followed by two-sector (tradable and non-tradable) DSGE model. Both models distinguish between physical and human capital investment and allow for labor-leisure choice. In the analysis, labor supply and time spent studying or acquiring skills are optimally chosen. The models are calibrated to match the key features of the Kenyan economy. In both models, a positive aid shock initially has a negative impact on labor supply and output. However, the shock subsequently has a positive effect on physical and human capital investment, and time spent studying. This is due to a positive income effect from the shock. A rise in foreign aid increases consumption; consumption smoothing across periods

raises physical and human capital investment, labor productivity, and output. I also find that reducing the volatility of aid has a significant positive effect on human capital investment and welfare. Policymakers should focus on reducing the volatility of foreign aid and not solely concentrate on the average level of aid.

The analysis of the two-sector DSGE-RBC model incorporates the role for the “Dutch Disease” mechanism. Consistent with the “Dutch Disease”, I find that a shock to foreign aid appreciates the relative price of non-tradable goods that causes the factors of production to reallocate from the tradable sector to the non-tradable sector, leading to a decline in GDP and the tradable output. Finding the “Dutch Disease” result here is not necessarily at odds with the CVAR estimation results as the DSGE-RBC simulation is a short-run analysis and the CVAR estimation is a long-run analysis.